

WHAT IS CLAIMED IS:

1. A sacrificial circuit connector for interposition between male and female connector terminals for applications in which the expected connect and disconnect cycles may exceed the rated cycle limits of at least one of the connector terminals, said sacrificial connector comprising:

- a connector body having a male and a female connector side, at least one of such sides having connection compatibility to a connector terminal rated for cycle limits less than the number of cycles expected for the application;

- at least one circuit coupling element through which a circuit can be completed located on the male side;

- at least one circuit coupling element through which a circuit can be completed located on the female side; and

- a circuit conduit within the connector body for connecting the circuit between the female side coupling element and the male side coupling element; and

wherein the male side is connection compatible with the female connector terminal and the female side is connection compatible with the male connector terminal.

2. The sacrificial connector of **claim 1**, wherein at least one of the sides of the sacrificial connector is connection compatible with a connector terminal having a cycle rating determined pursuant to test protocols issued by an industry body issuing standards such as Electronic Industry Alliance Standard 364-09, Revision C (1999).

3. The sacrificial connector of **claim 1**, wherein at least one of the connector terminals is connected to wires by crimped connections.

4. The sacrificial connector of **claim 1**, wherein the sacrificial connector has an expected cycle life less than about 150 connect and disconnect cycles.

5. The sacrificial connector of **claim 1**, wherein the sacrificial connector has an expected cycle life less than about 50 connect and disconnect cycles.

6. The sacrificial connector of **claim 1**, wherein the sacrificial connector has an expected cycle life less than about 35 connect and disconnect cycles.

7. The sacrificial connector of **claim 1**, wherein the sacrificial connector is connection compatible to at least one connector terminal rated for fewer than about 75 cycles.

8. The sacrificial connector of **claim 1**, wherein the sacrificial connector has an expected cycle life greater than the rated cycle life of at least one of the connector terminals to which it is to be connected.

9. The sacrificial connector of **claim 1**, further comprising an indicia informing a user which side of the sacrificial connector is preferable for disconnection.

10. The sacrificial connector of **claim 9**, wherein the indicia comprises visual indicia indicating the preferred disconnection side.

11. The sacrificial connector of **claim 9**, wherein the indicia comprises a member that removably attaches to the connector terminal that is not preferred for disconnection.

12. The sacrificial connector of **claim 1**, further comprising a feature for tracking the number of cycles that the sacrificial connector has endured.

13. The sacrificial connector of **claim 12**, wherein the tracking feature counts cycles without human intervention.

14. The sacrificial connector of **claim 12**, wherein the tracking feature comprises a tag.

15. The sacrificial connector of **claim 1**, wherein the sacrificial connector is capable of connecting an optical circuit.

16. The sacrificial connector of **claim 1**, wherein the circuit coupling element at the female side comprises male projection pins and the circuit coupling element at the male side comprises receptacles for receiving projection pins.

17. The sacrificial connector of **claim 1**, further comprising a second sacrificial connector coupled to the sacrificial connector, thereby enabling further preservation of at least one of the connector terminals.

18. The sacrificial connector of **claim 1**, wherein the connector body comprises features enabling connection to a plurality of connector terminal cross-sectional connection profiles.

19. The sacrificial connector of **claim 18**, wherein the features comprise break-away sections.

20. A process for extending the life of connector terminals, comprising:

forming a connector body having a male and a female connector side, at least one of such sides having connection compatibility to a connector terminal rated for cycle limits less than the number of cycles expected for the application;

locating on the male side at least one circuit coupling element through which a circuit can be completed;

locating on the female side at least one circuit coupling element through which a circuit can be completed;

enclosing at least one circuit conduit within the connector body for connecting the circuit between the female side coupling element and the male side coupling element; and

connecting one side of the connector body to at least one connector terminal.

21. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal having a cycle rating determined pursuant to test protocols issued by an industry standards body issuing standards such as the test procedure described in Electronic Industry Alliance Standard 364-09, Revision C (1999).

22. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal rated for fewer than about 75 cycles.

23. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal have a cycle rating less than the expected cycle life of the sacrificial connector.

24. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal at one end of a wire harness.

25. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal coupled to a customer replaceable cartridge in a printer system.

26. The process of **claim 20**, wherein connecting further comprises connecting to a connector terminal coupled to a component within a printer system.

27. The process of **claim 20**, wherein connecting further comprises connecting to a second sacrificial connector.

28. The process of **claim 20**, further comprising disconnecting the sacrificial connector to a connector terminal in accordance with an indicia informing the user which side of the sacrificial connector is preferred for disconnection.

29. The process of **claim 20**, further comprising tracking the number of cycles that the sacrificial connector has endured.

30. An electrophotographic printer, comprising:

a sacrificial circuit connector for interposition between male and female connector terminals for applications in which the expected connect and disconnect cycles may exceed the rated cycle limits of at least one of the connector terminals, said sacrificial connector comprising:

a connector body having a male and a female connector side, at least one of such sides having connection compatibility to a connector terminal rated for cycle limits less than the number of cycles expected for the application;

at least one circuit coupling element through which a circuit can be completed located on the male side;

at least one circuit coupling element through which a circuit can be completed located on the female side; and

a circuit conduit within the connector body for connecting the circuit between the female side coupling element and the male side coupling element; and

wherein the male side is connection compatible with the female connector terminal and the female side is connection compatible with the male connector terminal.

31. A sacrificial circuit connector for interposition between the connector terminals of a machine harness and a connector terminal for a component having a limited life for applications in which the expected connect and disconnect cycles may exceed the rated cycle limits of the machine harness connector terminal, said sacrificial connector comprising:

means for connection compatibility with the machine harness connector terminal;

means for connection compatibility with the connector terminal for the component; and

a circuit conduit within the sacrificial connector for connecting the circuit between the machine harness connector terminal and the connector terminal for the component.